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(12) **United States Patent**
Perricone(10) **Patent No.:** **US 9,636,291 B2**(45) **Date of Patent:** ***May 2, 2017**(54) **HAIR TREATMENT SYSTEMS AND METHODS USING PEPTIDES AND OTHER COMPOSITIONS**(71) Applicant: **Transdermal Biotechnology, Inc.,**
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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

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ABSTRACT

The present invention generally relates to compositions and methods for transdermal delivery, and treatment of hair related conditions. The compositions can be used in a variety of applications, including causing or promoting hair growth and/or hair pigmentation. In some cases, the composition may include nitric oxide and/or peptides. The nitric oxide and/or peptide may be present within a first phase comprising a lecithin, such as phosphatidylcholine. In certain embodiments, the lecithin is present in liposomes, micelles, or other vesicles containing nitric oxide, peptides, or both. The composition can take the form of a gel, a cream, a lotion, an ointment, a solution, a solid “stick,” etc., that can be rubbed or sprayed onto the skin, e.g., onto the scalp, or other suitable portion of the skin. Other aspects of the present invention are generally directed to methods of making or using such compositions, methods of promoting such compositions, kits including such compositions, or the like.

24 Claims, 1 Drawing Sheet(21) Appl. No.: **15/041,268**(22) Filed: **Feb. 11, 2016**(65) **Prior Publication Data**

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See application file for complete search history.

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